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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Vibhu Mittal

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EXAMINER

CHEN, TE Y

ART UNIT

PAPER NUMBER

2161

NOTIFICATION DATE

DELIVERY MODE

08/28/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/676,724	<b>Applicant(s)</b> MITTAL ET AL.	
	<b>Examiner</b> SUSAN Y. CHEN	<b>Art Unit</b> 2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06/25/09.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 14-21 and 46-61 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-21 and 46-61 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/25/2009</u> .  | 6) <input type="checkbox"/> Other: _____                          |

***Response to Amendment***

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 25, 2009 has been entered.

This office action is in response to the amendment filed on Jun. 25, 2009.

Claims 14-21 and 46-61, are pending for examination; claims 14 and 17 have been amended; claims 46-61 have been newly added; claims 1-13 and 22-45 have been canceled.

***Drawings***

The drawings were received on Sept. 30, 2003. These drawings have been noted by the Office and stored on record.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 14-21 and 46-61, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,724,593 issued to Hargrave et al. (hereinafter referred as Hargrave).

Claim 14:

Hargrave discloses a search method comprising:

obtaining a search query including one or more terms, each term written in a first format from a user [e.g., col. 5, lines 10 – 22, the source to target language formatting in Fig. 6, col. 9, lines 66—67, col. 13, lines 24 – 30, the translation memory (TM) obtains a user search query entered at the step 903, Fig. 9 in a source language format];

translating the one or more terms of the query into a group of translated queries, each translated query having one or more terms in a second format using a probabilistic dictionary, the probabilistic dictionary mapping terms from the first format to the second format [e.g., the use of a stored particular language query term relevant n-gram dictionary listing with probabilistic weight calculated by steps as shown by Fig 1 and associated texts, the use of computer software to perform

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probabilistic dictionary language translation at col. 5, lines 22 – col. 8, lines 60, the software of Translation Memory (TM) system of Fig. 9 which encodes, converts and decodes the source query language in query input segment format into a translated query vector format (e.g., the steps 905-907, Fig. 9) or sorted target text segments format at the steps: 901-917 of Fig. 9 and associated texts];

searching a database for information identifying documents responsive to one or more translated queries of the group of translated queries [e.g., The use of the unique document identification number (e.g. Abstract, lines 6-7, or the unique ID number assigned to the global filtered n-gram weighted file) to search the “TM” database for source language segments to produce translated text segments at col. 5, lines 10 – 22, col. 9, lines 36 – col. 10, lines 2, the use of search tree structures, hashing functions and digital trees in the Indexing processing of a TM system at col. 11, lines 6 – 36 and the applying of the post vector file (405, Fig. 4) and correlation file (407, Fig. 4) to search, index and retrieve translated queries of the group of translated queries processing at col. 12, lines 38 – col. 14, lines 16]; and

returning search results written in the second format to the user, the search results referencing one or more documents responsive to the one or more translated queries [e.g., the use of correlation and linking back techniques at col. 12, lines 50 - 55, col. 14, lines 20 – 24, Fig. 9 and associated texts].

Claim 15:

Except the limitations recited in claim 14, Hargrave further discloses:

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obtaining search result selections from the user [e.g., the steps: 903-907, Fig. 9 and associated texts];

using said search result selections to modify the probabilistic dictionary of term mappings [e.g., col. 13, lines 20 – 57, the steps: 903-913, Fig. 9 and associated texts].

Claim 16:

Except the limitations recited in claim 15, Hargrave further discloses the modification comprises adjusting at least one probability associated with at least one mapping in the probabilistic dictionary [e.g., col. 5, lines 1-9, Fig. 9 and associated texts].

Claim 17:

Except the limitations recited in claim 14, Hargrave further discloses where translating the query into the second format includes expanding the query [e.g., the adding and linking back schema at col. 12, lines 26- col. 13, lines 6, col. 13, lines 41 – col. 14, lines 8].

Claim 18:

Except the limitations recited in claim 17, Hargrave further discloses the expanded query includes alternative encodings of the query terms [e.g., col. 14, lines 1-16].

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Claim 19:

Except the limitations recited in claim 17, Hargrave further discloses the expanded query includes alternative language translations of the query terms [e.g., col. 14, lines 16-17].

Claim 20:

Except the limitations recited in claim 17, Hargrave further discloses the expanded query includes alternative encodings and alternative language translations of the query terms [e.g., col. 14, lines 1-17].

Claim 21:

Except the limitations recited in claim 18, Hargrave further disclose the expanded query includes synonyms of the alternative encodings of the query terms [e.g., col. 2, lines 38-67, col. 14, lines 1-17].

As to claims 46 – 61, these claims recite similar features as claims 14 – 21 in form of computer system and storage medium encoded with a computer program, hence are rejected for the same reason.

### ***Response to Arguments***

Applicant's arguments filed on June 25, 2009 have been fully considered but they are not persuasive.

The examiner disagrees with applicant's arguments and piece-meal interpretations.

Applicant mainly argued that:

1) Hargrave does not disclose or suggest the claimed searching a database for information responsive to one or more translated queries of the groups of translated queries;

2) Hargrave does not disclose or suggest any use of a probabilistic dictionary mapping terms in a first format corresponds to a term in the second formats.

In respond to arguments 1), the examiner directs applicant attention to the following excerpts and Figures disclosed by Hargrave:

As acknowledged by applicant, the Translation Memory (TM) system disclosed by Hargrave includes a database that "collects translations as they are performed along with the source language equivalents." (col. 2, lines 39 - 41). Further, Hargrave clearly disclosed that "In accordance with the present invention, the heart of the TM is an "aligned file" comprising a source language file that is broken into a plurality of text segments. Each text segment may be a word, group of words, phrase, sentence,. or the like. Each source language text segment is associated or aligned with a translated text segment in a target language. Many of the operations described below are performed only on the text strings in the source language file. However, it should be remembered throughout the discussion that each source language text segment is associated with a translated text segment in the aligned file thereby allowing searches



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of the source language text segments to produce translated text segments also.” (col. 5, lines 10 -22)

As set forth above, Hargrave clearly disclosed searching the “TM” database for source language segments to produce translated text segments via the associations of the source language segment to the translated text segments.

In addition, Hargrave clearly disclosed the use of the unique document identification number [e.g. the unique ID number assigned to the global filtered n-gram weighted file] to search the “TM” database for source language segments to produce translated text segments at col. 9, lines 36 – col. 10, lines 5. He further disclosed the use of search tree structures, hashing functions and digital trees in the Indexing processing of a TM system at col. 11, lines 6 – 36.

Moreover, Hargrave clearly disclosed the applying of the post vector file (e.g., the unit 405, Fig. 4) and correlation file (e.g., the units 407, Fig. 4) linked back processing to search the TM database [e.g., col. 12, lines 38 – col. 13, lines 6] and retrieving of the translated queries of the group of translated queries [e.g., the accumulated, tokenized, weighted, filtered, normalized, sorted and stored queries as shown by steps 901-917, Fig. 9 and at col. 13, lines 7 – col. 14, lines 16]. Thus, in contrary to applicant's arguments, Hargrave clearly disclosed the claimed features.

In reply to arguments 2), the examiner further directs applicant's attention to Hargrave TM system, wherein, he clearly disclosed the use of a probabilistic dictionary [e.g., a collected, tokenized, weighted, filtered n-grams dictionary at col. 5, lines 43 –

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col. 11, lines 5] which maps query source language terms in a first format [e.g., a query input segment format at the step 901, Fig. 1] corresponds to a term in the second formats [e.g., a translated query vector format (e.g., the steps 905-907, Fig. 9) or the final sorted target text segments format at the steps: 909-917 of Fig. 9 and associated texts]. Thereby, in contrary to applicant's arguments, Hargrave fully anticipated the claimed features.

Based on the discussion above, because applicant does not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or rejections, therefore, it is believed that the rejections on record should be sustained.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

1) Noble et al. (U.S. Patent No. 5,634,053), which disclosed federated information management (FIM) system and method for providing data site filtering and translation for heterogeneous databases.

2) Kumai et al. (U.S. Patent No. 5,634,134), which disclosed Method and apparatus for determining character and character mode for multi-lingual keyboard based on input characters.

***Points of Contact***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SUSAN Y. CHEN whose telephone number is (571)272-4016. The examiner can normally be reached on Monday - Friday from 7:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mofiz Apu can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Art Unit 2161

March 19, 2009

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